

CLAIMS

1. A catheter assembly comprising: a wetting fluid (150; 250; 350; 450; 650; 750); a catheter (130; 230; 330; 430; 630; 730) having on its surface, on at least an insertable part thereof, a hydrophilic surface layer providing low-friction surface character of the catheter by treatment with said wetting fluid; and a receptacle (120; 220; 320; 420; 620; 720) enclosing at least the insertable part of the catheter; characterized in that the wetting fluid (150; 250; 350; 450; 650; 750) comprises at least one dissolved osmolality-increasing compound, wherein the total concentration of the dissolved osmolality-increasing compound(s) exceeds 600 mOsm/dm³.
2. The catheter assembly as claimed in claim 1, wherein the wetting fluid (650; 750) is arranged in wetting contact with the hydrophilic surface layer of the catheter (630; 730) in the receptacle (620; 720), for preservation of the hydrophilic surface layer in a wetted state during accommodation in said receptacle and provision of a ready-to-use catheter assembly.
3. The catheter assembly as claimed in claim 1, wherein said assembly presents a storage state in which the wetting fluid (150; 250; 350; 450) is kept separated from the hydrophilic surface layer of the catheter (130; 230; 330; 430), and an activation state in which the wetting fluid is brought into contact with said hydrophilic surface layer before an intended use of the catheter.
4. The catheter assembly as claimed in any one of the preceding claims, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) exceeds 700 mOsm/dm³, and preferably exceeds 800 mOsm/dm³.
5. The catheter assembly as claimed in any one of the preceding claims, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) is in the range of 850 to 950 mOsm/dm³, and preferably about 900 mOsm/dm³.
6. The catheter assembly as claimed in any one of the preceding claims, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) is less than 1500 mOsm/dm³.

7. The catheter assembly as claimed in any one of the preceding claims, wherein said osmolality-increasing compound(s) is/are selected from the group consisting of urea, amino acids, mono and disaccharides, sugar alcohols, and non-toxic organic and inorganic salts or acids, polypeptides and mixtures thereof.

8. The catheter assembly as claimed in claim 7, wherein said osmolality-increasing compound(s) is/are selected from the group consisting of glucose, sorbitol, sodium chloride, sodium citrate, sodium benzoate, calcium chloride, potassium chloride, potassium iodide and potassium nitrate.

9. The catheter assembly as claimed in any one of the preceding claims, wherein the said wetting fluid (150; 250; 350; 450; 650; 750) further comprises a polymer.

10. The catheter assembly as claimed in claim 9, wherein the polymer is a hydrophilic polymer, and preferably the same type of hydrophilic polymer as in the hydrophilic coating of the catheter.

11. The catheter assembly as claimed in claim 9 or 10, wherein the amount of polymer in the wetting fluid is in the range 0-20% of weight, and most preferably in the range 5-15%, and typically about 10%.

12. The catheter assembly as claimed in any one of the preceding claims, wherein the wetting fluid (150; 250; 350; 450; 650; 750) is a water-based liquid.

13. The catheter assembly as claimed in any one of the preceding claims, wherein the catheter is a urinary catheter (130; 230; 330; 430; 630; 730) intended for intermittent use.

14. The catheter assembly as claimed in any one of the preceding claims, wherein said wetting receptacle (120; 420; 720) encloses the entire catheter (130; 430; 730).

15. The catheter assembly as claimed in any one of the preceding claims, wherein said receptacle (220; 420; 620; 720) entirely encloses said wetting fluid.

16. The catheter assembly as claimed in any one of the preceding claims, further comprising a separate wetting fluid container, which encloses said wetting fluid (150; 250; 350; 450; 650; 750) and which forms part of said catheter assembly.

5 17. A wetting fluid (150; 250; 350; 450; 650; 750) for activation of a hydrophilic surface layer in order to produce a low-friction surface character of said hydrophilic surface layer by treatment by said the wetting fluid,
c h a r a c t e r i z e d in that the wetting fluid (150; 250; 350; 450; 650; 750) comprises at least one dissolved osmolality-increasing compound, wherein the total
10 concentration of the osmolality-increasing compound(s) exceeds 600 mOsm/dm³.

18. The wetting fluid as claimed in claim 17, wherein the total concentration of said osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) exceeds 700 mOsm/dm³, and preferably exceeds 800 mOsm/dm³.
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19. The wetting fluid as claimed in claim 17, wherein the total concentration of said osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) is in the range of 850 to 950 mOsm/dm³, preferably about 900 mOsm/dm³.

20 20. The wetting fluid as claimed in any one of claims 17-19, wherein the total concentration of said osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) is less than 1500 mOsm/dm³.

21. The wetting fluid as claimed in any one of claims 17-20, wherein said
25 osmolality-increasing compound(s) is/are selected from the group consisting of urea, amino acids, mono and disaccharides, sugar alcohols, and non-toxic organic and inorganic salts or acids, polypeptides and mixtures thereof.

22. The wetting fluid as claimed in any one of claims 17-21, wherein the
30 wetting fluid (150; 250; 350; 450; 650; 750) is a water-based liquid.

23. A method for producing a catheter assembly, comprising:
providing a receptacle (120; 220; 320; 420; 620; 720);
providing a hydrophilic catheter (130; 230; 330; 430; 630; 730);
35 providing a wetting fluid (150; 250; 350; 450; 650; 750);
arranging at least an insertable part of the catheter in the receptacle (120; 220; 320; 420; 620; 720) and arranging said wetting fluid (150; 250; 350; 450; 650; 750)

as a part of said catheter assembly;

said wetting fluid (150; 250; 350; 450; 650; 750) comprising at least one dissolved osmolality-increasing compound, the total concentration of the osmolality-increasing compound(s) exceeding 600 mOsm/dm³.

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24. The method as claimed in claim 23, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) exceeds 700 mOsm/dm³, and preferably exceeds 800 mOsm/dm³.

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25. The method as claimed in claim 23, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) is in the range of 850 to 950 mOsm/dm³, and preferably about 900 mOsm/dm³.

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26. The method as claimed in any one of claims 23-25, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) is less than 1500 mOsm/dm³.

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27. The method of any one of the claims 23-26, wherein the osmolality-increasing compound is selected from the group consisting of urea, amino acids, mono and disaccharides, sugar alcohols, and non-toxic organic and inorganic salts or acids, polypeptides and mixtures thereof.

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28. The method of any one of the claims 23-27, wherein the wetting fluid (150; 250; 350; 450; 650; 750) is a water-based liquid.

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29. A catheter (130; 230; 330; 430; 630; 730) having on its surface, on at least an insertable part thereof, a hydrophilic surface layer for producing a low-friction surface character of the catheter by treatment with a wetting fluid (150; 250; 350; 450; 650; 750), c h a r a c t e r i z e d in that the hydrophilic coating when wetted in preparation for an intended use incorporates at least one osmolality-increasing compound, wherein the total concentration of the osmolality-increasing compound(s) exceeds 600 mOsm/dm³.

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30. The catheter as claimed in claim 29, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) exceeds 700 mOsm/dm³, and preferably exceeds 800 mOsm/dm³.

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31. The catheter as claimed in claim 29 or 30, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) is in the range of 850 to 950 mOsm/dm³, and preferably about 900 mOsm/dm³.

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32. The catheter as claimed in any one of claims 29-38, wherein the catheter is a urinary catheter (130; 230; 330; 430; 630; 730) intended for intermittent use.

33. Use of a wetting fluid solution (150; 250; 350; 450; 650; 750) for
10 activation of a catheter (130; 230; 330; 430; 630; 730) having on its surface, on at least an insertable part thereof, a hydrophilic surface layer providing low-friction surface character of the catheter by treatment with said wetting fluid,
c h a r a c t e r i z e d in that the wetting fluid (150; 250; 350; 450; 650; 750)
comprises at least one dissolved osmolality-increasing compound, wherein the total
15 concentration of the dissolved osmolality-increasing compound(s) exceeds 600 mOsm/dm³.

34. The use as claimed in claim 33, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) exceeds 700 mOsm/dm³, and preferably exceeds 800 mOsm/dm³.

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35. The use as claimed in claim 33 or 34, wherein the total concentration of the osmolality-increasing compound(s) in the wetting fluid (150; 250; 350; 450; 650; 750) is in the range of 850 to 950 mOsm/dm³, and preferably about 900 mOsm/dm³.

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